Access DB# 112932

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Linh Truong Examiner #: 78961 Date: 1/28/04
Art Unit: 3761 Phone Number 30 605-4974 Serial Number: 10050126
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Disinfecting method for wound treatment w/o using liquid disinfectant
Inventors (please provide full names): Liang Che-Peng

Earliest Priority Filing Date: 1/18/02

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please see attached claims (3).
Pls it is a method claim.
disinfecting a wound with ozone
and the steps of producing/applying
the ozone. Key words are
highlighted. Please have this
searched ASAP.
Thank you very much.
Linh

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: Jeanne Horrigan	NA Sequence (#)		STN	
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed:	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time:	Other		Other (specify)	

PTO-1590 (8-01)

STIC Search Report
EIC 3700

STIC Database Tracking Number: 112932

TO:	From:
Linh T Truong **Location: cp2 3b30** **Art Unit: 3761** **Case Serial Number: 10/050126**	**Jeanne Horrigan** **Location: EIC 3700** **CP2-2C08** **Phone: 305-5934** **jeanne.horrigan@uspto.gov**

Search Notes

Attached are the search results for the method of disinfecting wounds/skin/tissue with ozone, including prior art searches in foreign and international patent databases; medical, biotechnology, alternative medicine, and general sci/tech non-patent literature databases; and the Web via the Scirus search engine.

Also attached is a search feedback form. Completion of the form is voluntary. Your completing this form would help us improve our search services.

I hope the attached information is useful. Please feel free to contact me (phone 305-5934 or email jeanne.horrigan@uspto.gov) if you have any questions or need additional searching on this application.

STIC Search Results Feedback Form

EIC 3700

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact:***

John Sims, EIC 3700 Team Leader
308-4836, CP2-2C08

Voluntary Results Feedback Form

➢ *I am an examiner in Workgroup:* ☐ *Example: 3730*

➢ *Relevant prior art **found**, search results used as follows:*

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

➢ *Relevant prior art **not found:***

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC3700 CP2-2C08

File 348:EUROPEAN PATENTS 1978-2004/Jan W05
File 349:PCT FULLTEXT 1979-2002/UB=20040129,UT=20040122

Set	Items	Description
S1	**1**	**AU='LIANG CHIH PING' [not relevant]**
S2	83	AU=LIANG C?
S3	18031	OZONE
S4	13307	DISINFECT?
S5	0	S2 AND S3
S6	0	S2 AND S4

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200408
File 347:JAPIO Oct 1976-2003/Sep(Updated 040105)
File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	2	AU='LIANG C P'
S2	223	AU='LIANG C'
S3	25654	DISINFECT?
S4	0	S1 AND S3
S5	**1**	**S2 AND S3**
S6	39262	OZONE
S7	2	S1:S2 AND S6
S8	**1**	**S7 NOT S5**

5/7/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015703559 **Image available**
WPI Acc No: 2003-765752/200372
Wound disinfecting **method, involves multiplying voltage to electric discharge allowing ozone generating unit to generate ozone and passing ozone over wound to destroy bacteria surrounding wound**
Patent Assignee: LIANG C (LIAN-I)
Inventor: **LIANG C**
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030139734	A1	20030724	US 200250126	A	20020118	200372	B

Priority Applications (No Type Date): US 200250126 A 20020118
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030139734	A1		8	A61B-018/18	

Abstract (Basic): US 20030139734 A1

NOVELTY - The method involves supplying air increased with a turbine fan and a wind tunnel. A voltage is multiplied to an electric discharge that allows an ozone generating unit to generate high concentration ozone. An electromagnetic interference is eliminated to eliminate static electricity interference of electromagnetic waves. The ozone is blown out and passed over the wound to destroy bacteria around the wound.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a wound **disinfecting** device.

USE - Used for **disinfecting** wounds.

ADVANTAGE - The passing of generated ozone over the wound reduce the risk of the wound getting infected because the device does not come into contact with the wound, thereby the wound can heal up rapidly and the medical staff can be protected from infection.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow chart of a wound **disinfecting** method.
pp; 8 DwgNo 1/5
Derwent Class: P34; S05; V04
International Patent Class (Main): A61B-018/18

8/26,TI/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014834638
WPI Acc No: 2002-655344/200270
Ion engine for mobile phone, flight device, has superconductor releasing high voltage to influence gas inside dynamo and ionizing gas to generate electromagnetic impulse

```
File 155:MEDLINE(R) 1966-2004/Jan W4
File   5:Biosis Previews(R) 1969-2004/Jan W4
File  73:EMBASE 1974-2004/Jan W4
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Jan W4
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
Set     Items   Description
S1        484   AU='LIANG C'
S2          9   AU='LIANG C P'
S3        165   AU='LIANG C.'
S4          8   AU='LIANG C.-P.'
S5         30   AU='LIANG CP'
S6      75400   OZONE
S7      52670   DISINFECT?
S8          0   S1:S5 AND S6 AND S7
S9          0   S1:S5 AND S6
S10   4311935   7
S11         1   S1:S5 AND S7

 11/6/1     (Item 1 from file: 5)
0008203254   BIOSIS NO.: 199293046145
ELECTROCATALYSIS AND AMPEROMETRIC DETECTION OF ORGANIC PEROXIDES AT
  MODIFIED CARBON-PASTE ELECTRODES
1991
```

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File 155:MEDLINE(R) 1966-2004/Feb W1
File   5:Biosis Previews(R) 1969-2004/Jan W4
File  73:EMBASE 1974-2004/Jan W4
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Jan W4
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 144:Pascal 1973-2004/Jan W4
File   2:INSPEC 1969-2004/Jan W4
File   6:NTIS 1964-2004/Feb W1
File   8:Ei Compendex(R) 1970-2004/Jan W4
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Dec
File  65:Inside Conferences 1993-2004/Feb W1
File  94:JICST-EPlus 1985-2004/Jan W4
File  35:Dissertation Abs Online 1861-2004/Jan
File  95:TEME-Technology & Management 1989-2004/Jan W3
File  91:MANTIS(TM) 1880-2003/Feb
File 164:Allied & Complementary Medicine 1984-2004/Feb
File 172:EMBASE Alert 2004/Jan W4
File 467:ExtraMED(tm) 2000/Dec
File 162:Global Health 1983-2004/Dec
File  71:ELSEVIER BIOBASE 1994-2004/Jan W4
File 143:Biol. & Agric. Index 1983-2004/Dec
File 156:ToxFile 1965-2004/Jan W3
File 305:Analytical Abstracts 1980-2004/Dec W4
File  19:Chem.Industry Notes 1974-2004/ISS 200404
File  42:Pharmaceuticl News Idx 1974-2004/Jan W4
File  50:CAB Abstracts 1972-2004/Dec
File 285:BioBusiness(R) 1985-1998/Aug W1
File 319:Chem Bus NewsBase 1984-2004/Feb 03
File 358:Current BioTech Abs 1983-2004/Jan
File 315:ChemEng & Biotec Abs 1970-2004/Jan
Set     Items   Description
S1     215962   OZONE OR O3 OR TRIATOMIC()OXYGEN
S2      87671   FAN OR FANS OR BLOWER? ?
S3      70380   WIND()TUNNEL? ?
S4      47647   ELECTROMAGNETIC()INTERFERENCE OR EMI OR STATIC()(ELECTRICI-
             TY OR CHARGE OR CHARGES)
S5     124557   DISINFECT?
S6      63394   DECONTAMINAT? OR ANTISEPTICIZ? OR ANTISEPTICIS?
S7    7852209   WOUND? ? OR INJURY OR INJURIES OR TISSUE OR SKIN OR EPIDER-
              M? OR DERMAL OR DERMIS
S8          0   S1 AND S2 AND S3 AND S4
S9        415   S1 AND S2:S4
S10      9054   S5:S6(S)S7
S11         0   S9 AND S10
S12        96   S1 AND S10
S13         0   S2 AND S12
S14    582969   STATIC
S15         1   S12 AND S14 [not relevant]
```

File 155:MEDLINE(R) 1966-2004/Jan W4

Set	Items	Description
S1	463336	R1:R4
S2	30406	R1:R3
S3	6322	R1:R2
S4	**2**	**S1 AND S2 AND S3**
S5	38741	DISINFECT? OR STERILIZ? OR STERILIS?
S6	488155	WOUND? ? OR INJURY OR INJURIES
S7	6322	OZONE
S8	6	S5 AND S6 AND S7
S9	**4**	**S8 NOT S4**
S10	730	TURBINE OR WIND()TUNNEL? ?
S11	0	S9 AND S10
S12	0	S7 AND TURBINE()FAN? ? AND WIND()TUNNEL? ?

4/7/1

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
09952112 21866806 PMID: 11876864

The role of ozone **solution on debridement and** sterilization **of burn wound]**

Xie W; Zhang L; Yang R

Department of Burns, The Third Municipal Hospital of Wu Han, Wu Han 430037, P.R. China.

Zhonghua shao shang za zhi = Zhonghua shaoshang zazhi = Chinese journal of burns (China) Jun 2000, 16 (3) p163-5, ISSN 1009-2587
Journal Code: 100959418

Document type: Journal Article ; English Abstract
Languages: CHINESE
Main Citation Owner: NLM
Record type: Completed

OBJECTIVE: To observe the role of **ozone** solution on debridement and **sterilization** of burn wound. METHODS: In vitro sterilizing effect on common isolated bacteria from burn wound and debridement and **sterilization** effects on burn wound of **ozone** disinfectant (**ozone** solution) were studied. RESULTS: All the bacteria tested were killed in vitro by **ozone** solution. In addition, when **ozone** solution was applied on burn wound, its clearance rate of bacteria was 94.5% and the clinical effective rate was 97.1%. CONCLUSION: **Ozone** is low in cost and high in effect which might be used as an agent for burn wound **disinfection** .

Record Date Created: 20020305
Record Date Completed: 20020712

4/7/2

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
06987373 91227924 PMID: 2028267

Is ozone **suitable for** sterilization **of HIV infected bones?]**

Ist Ozon zur Sterilisierung HIV-infizierter Knochen geeignet?

Roder W; Muller W E; Merz H

Klinik und Poliklinik fur Unfallchirurgie, Johannes Gutenberg-Universitat Mainz.

Der Unfallchirurg (GERMANY) Jan 1991, 94 (1) p50-1, ISSN 0177-5537
Journal Code: 8502736

Document type: Journal Article ; English Abstract
Languages: GERMAN

Main Citation Owner: NLM
Record type: Completed
HIV infection can be transferred by blood, blood products and organ transplantation. In traumatic surgery allogeneic bone transplantation is commonly used for reconstruction in severe bone **injuries** . This technique has been abandoned since the appearance of reports of infections with HIV. In an experimental in vitro study we showed that **ozone** treatment cannot inactivate HIV in bone for transplantation.
Record Date Created: 19910610
Record Date Completed: 19910610

9/6/1
14900123 22592857 PMID: 12706751
Exercising animal models in inhalation toxicology: interactions with ozone **and formaldehyde.**
May 2003

9/6/2
09007769 20300591 PMID: 10840346
Microbicidal activity of MDI-P against Candida albicans, Staphylococcus aureus, Pseudomonas aeruginosa, and Legionella pneumophila.
Jun 2000

9/6/3
07191790 92054141 PMID: 2131624
[Antimicrobial activity of ozonized water in determined experimental conditions]
Actividad antimicrobiana del agua ozonizada en determinadas condiciones experimentales.
Jul-Aug 1990

9/6/4
04434369 84076579 PMID: 6650262 Record Identifier: 84076579
Enumeration of indicator bacteria exposed to chlorine.
1983

File 98:General Sci Abs/Full-Text 1984-2004/Jan
File 9:Business & Industry(R) Jul/1994-2004/Feb 03
File 16:Gale Group PROMT(R) 1990-2004/Feb 04
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2004/Feb 04
File 621:Gale Group New Prod.Annou.(R) 1985-2004/Feb 04
File 149:TGG Health&Wellness DB(SM) 1976-2004/Jan W4
File 636:Gale Group Newsletter DB(TM) 1987-2004/Feb 04
File 441:ESPICOM Pharm&Med DEVICE NEWS 2004/Feb W1
File 369:New Scientist 1994-2004/Jan W4
File 370:Science 1996-1999/Jul W3
File 135:NewsRx Weekly Reports 1995-2004/Jan W4
File 129:PHIND(Archival) 1980-2004/Jan W4
File 624:McGraw-Hill Publications 1985-2004/Feb 03
File 635:Business Dateline(R) 1985-2004/Feb 03

Set	Items	Description
S1	71356	OZONE OR O3 OR TRIATOMIC()OXYGEN
S2	394894	FAN OR FANS OR BLOWER? ?
S3	9408	WIND()TUNNEL? ?
S4	75694	ELECTROMAGNETIC()INTERFERENCE OR EMI OR STATIC()(ELECTRICITY OR CHARGE OR CHARGES)
S5	32008	DISINFECT?
S6	17966	DECONTAMINAT? OR ANTISEPTICIZ? OR ANTISEPTICIS?
S7	930198	WOUND? ? OR INJURY OR INJURIES OR TISSUE OR SKIN OR EPIDERM? OR DERMAL OR DERMIS
S8	1	S1 AND S2 AND S3 AND S4
S9	6884	S5:S6 AND S7
S10	**1**	**S8 AND S9 [not relevant]**
S11	0	S1(S)S2(S)S3(S)S4
S12	1016	S5:S6(5N)S7
S13	**3**	**S1(S)S12**
S14	472202	S2:S4
S15	0	S13(S)S14
S16	0	S13 AND S14

13/3,AB,K/1 (Item 1 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
(c) 1999 The Gale Group. All rts. reserv.
01656042
Barrier Science & Technology - Product Design & Development.
ANNUAL REPORT 1986 p. 0
The other area of excitement involves the use of oxygen-derived **ozone** known as "Medical **Ozone** ", a powerful anti-microbial substance. It is capable when properly manufactured with a proprietary device and blended with oxygen, of not only **disinfecting wounds** externally, but can also be safely used internally in our blood system with a proven capability to produce a profound beneficial effect in fighting infection due to bacteria viruses and fungi. The proof of Medical **Ozone** 's record of safety comes from Europe where it has been used by doctors and clinics for over 25 years, although remaining virtually unknown in North America.

13/3,AB,K/2 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
08021285 SUPPLIER NUMBER: 17338668 (USE FORMAT 7 OR 9 FOR FULL TEXT)
U.S. Hospital Infection Control Market to Near $1.2 Billion by 2001, Paced

by New Sterilization Systems.
Business Wire, p7251066
July 25, 1995
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 426 LINE COUNT: 00057
... market includes products used in steam, ethylene oxide, hydrogen peroxide, gas plasma, peracetic acid and **ozone** sterilization, used to sterilize instruments, equipment and devices coming into contact with patients; Containers, wraps...
..as packaging for sterilization equipment; Decontamination equipment, automated endoscope reprocessors, instrument disinfectants and hard surface **disinfectants** used for **disinfection** ; and **skin** antisepsis products...

13/3,AB,K/3 (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2004 The Gale Group. All rts. reserv.
01623052 Supplier Number: 42493128
Small Companies: Medizone International
Health Business, v6, n43, pN/A
Nov 1, 1991
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1413
... he's not the first to see medical benefits in the gas.
Medicinal use of **ozone** -- an oxygen molecule with an extra oxygen atom -- has a nebulous history. It was used in the early 1920s by German doctors to **disinfect** World War I veterans' unhealed **wounds** . In the 1930s, **ozone** was studied for its ability to kill viruses; some German doctors used the gas to treat ulcerative colitis. Since then, **ozone** has seen use around the world to treat a variety of conditions...
... Armed with the Blood study and anecdotal evidence displaying ozone's ability to **decontaminate** blood, heal **wounds** , and put cancer into remission, Medizone is close to human trials. FDA has given the...
...However, a recently-inked $23 million private placement will support the trials. Human studies of **ozone** used against blood decontamination are still a ways off, according to McGrath.
In the Blood...

```
     (FILE 'HOME' ENTERED AT 09:06:49 ON 04 FEB 2004)
     FILE 'REGISTRY' ENTERED AT 09:07:02 ON 04 FEB 2004
                E OZONE/CN
L1             1 S E3
     FILE 'MEDLINE, BIOSIS, EMBASE, BIOTECHNO, HCAPLUS, CBNB, ENCOMPLIT2'
     ENTERED AT 09:08:44 ON 04 FEB 2004
L2         98020 S L1
L3         28065 S FAN OR FANS OR BLOWER OR BLOWERS
L4          6174 S WIND TUNNEL?
L5        209489 S ELECTROMAGNETIC INTERFERENCE OR EMI OR STATIC
L6             0 S L2 AND L3 AND L4 AND L5
     FILE 'CEN, CIN' ENTERED AT 09:10:07 ON 04 FEB 2004
L7          3811 S L2
L8           479 S L3
L9            14 S L4
L10         1988 S L5
L11            0 S L7 AND L8 AND L9 AND L10
     FILE 'RUSSCI' ENTERED AT 09:12:03 ON 04 FEB 2004
L12            0 S L2 AND L3 AND L4 AND L5
L13          619 S OZONE
L14            0 S L3 AND L4 AND L5 AND L13
```

```
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200408
File 347:JAPIO Oct 1976-2003/Sep(Updated 040105)
File 371:French Patents 1961-2002/BOPI 200209
Set     Items   Description
S1      46058   OZONE OR O3 OR TRIATOMIC()OXYGEN
S2     224787   FAN OR FANS OR BLOWER? ?
S3       2472   WIND()TUNNEL? ?
S4      26569   ELECTROMAGNETIC()INTERFERENCE OR EMI OR STATIC()(ELECTRICI-
             TY OR CHARGE OR CHARGES)
S5      25654   DISINFECT?
S6       7380   DECONTAMINAT? OR ANTISEPTICIZ? OR ANTISEPTICIS?
S7     503859   WOUND? ? OR INJURY OR INJURIES OR TISSUE OR SKIN OR EPIDER-
             M? OR DERMAL OR DERMIS
S8       5415   IC=A61B-018
S9          1   S1 AND S2 AND S3 AND S4 [a duplicate]
S10      2180   S5:S6(S)S7
S11        34   S1 AND S10
S12         3   S2:S4 AND S11
S13         2   S12 NOT S9
S14         1   S1 AND S2:S4 AND S8
S15         0   S14 NOT S12

 13/7/1     (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
012470841    **Image available**
WPI Acc No: 1999-276949/199923
   Ozone  generator gives purified air stream harmless to humans
Patent Assignee: ECO-AIRE CO INC (ECOA-N)
Inventor: ANDREWS C; NELSON J
Number of Countries: 081  Number of Patents: 002
Patent Family:
Patent No     Kind   Date     Applicat No    Kind   Date     Week
WO 9913922     A1  19990325  WO 98US19633    A   19980918  199923  B
AU 9894959     A   19990405  AU 9894959      A   19980918  199933
Priority Applications (No Type Date): US 9894574 P 19980729; US 9759284 P
  19970918
Patent Details:
Patent No  Kind Lan Pg   Main IPC     Filing Notes
WO 9913922    A1 E  76 A61L-002/10
   Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU
   CZ DE DK EE ES FI GB GE GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS
   LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
   TT UA UG US UZ VN YU ZW
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
AU 9894959    A                      Based on patent WO 9913922
Abstract (Basic): WO 9913922 A1
        NOVELTY - The system includes an ozone generating radiation
    source and distribution means to reduce air velocity to increase
    residence time in chamber which allows the ozone to react with
    contaminants, and also a germicidal chamber for removing residual
    contaminants.
        DETAILED DESCRIPTION - System (2a) for removing contaminants from
    air stream includes ambient air intake (7); ozone chamber (8) with
    ozone generating radiation source (36,12) and distribution means (10)
```

to reduce air velocity to increase residence time in chamber allowing **ozone** to react with contaminants in air stream; germicidal chamber (16) with radiation source (36,14) for removing residual contaminants and **ozone** ; exhaust (28) to return air stream to environment; and air flow control means.

INDEPENDENT CLAIMS are included for:

(a) a system as main claim including a soaking chamber to increase residence time;

(b) a system for removing contaminants from objects which includes receptacle for object; **ozone** and germicidal chambers as above; means for directing **ozone** enriched air towards object, preferably tube and nozzle;

(c) a method of drawing in ambient air, irradiating in **ozone** chamber, reducing air velocity to increase residence time, irradiating in germicidal chamber, and returning air to environment;

(d) a method as above where the ozonated air is directed against an object;

(e) a method as above where the air is passed through the **ozone** chamber and the germicidal chamber before being directed at the object;

(f) the method as above, where the object is a portion of a body.

USE - Using purified **ozonated air to decontaminate** items, such as **part of the body**, food, kitchen utensils. Carbon monoxide can be removed from garage air. Pet litter trays can be deodorized. The device can ozonate room air by mounting in a ceiling **fan** , or wall, ceiling or duct, or a car ventilation system.

ADVANTAGE - By increasing the residence time of the air in the device, and subsequently irradiating a second time, the sterilized air is free of **ozone** when it is used to **decontaminate** for example **wounds** or **skin** conditions. One radiation source can carry out both the ozonation and germicidal functions.

DESCRIPTION OF DRAWING(S) - The drawing shows a cross-section of the system.

system (2a)
ambient air intake (7)
ozone chamber (8)
ozone generating radiation source (36,12)
distribution means (10)
germicidal chamber (16)
radiation source for removing residual contaminants and **ozone** (36,14)
exhaust (28)
pp; 76 DwgNo 3/31

Derwent Class: D21; D22; E36; J01; P34
International Patent Class (Main): A61L-002/10
International Patent Class (Additional): A61L-002/00; A61L-002/08

13/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

011550787 **Image available**
WPI Acc No: 1997-527268/199749

Multifunctional thermostatic burns curing instrument

Patent Assignee: QIANNAN BOUYEI NATIONALITY AUTONOMOUS PR (QIAN-N)
Inventor: WANG J
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No Kind Date Applicat No Kind Date Week
CN 1126623 A 19960717 CN 95115764 A 19951005 199749 B
Priority Applications (No Type Date): CN 95115764 A 19951005
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
CN 1126623 A A61N-005/06
Abstract (Basic): CN 1126623 A

The burns curing instrument consists of casing, controller mounted on front panel, magnetic IR curing unit, **ozone disinfector** and light on the top of casing, and exhaust **fan** on the side of casing. With the functions of temp control, **disinfection** , magneto-therapy and waste gas exhaust, the instrument has excellent curing effect in controlling **wound** infection and curing large-area burns and is suitable for use in various levels of hospitals.

Dwg.1/1

Derwent Class: P34; S05
International Patent Class (Main): A61N-005/06
International Patent Class (Additional): A61L-009/015

File 348:EUROPEAN PATENTS 1978-2004/Jan W05
File 349:PCT FULLTEXT 1979-2002/UB=20040129,UT=20040122

Set	Items	Description
S1	40219	OZONE OR O3 OR TRIATOMIC()OXYGEN
S2	61202	FAN OR FANS OR BLOWER? ?
S3	659	WIND()TUNNEL? ?
S4	16261	ELECTROMAGNETIC()INTERFERENCE OR EMI OR STATIC()(ELECTRICITY OR CHARGE OR CHARGES)
S5	13307	DISINFECT?
S6	4897	DECONTAMINAT? OR ANTISEPTICIZ? OR ANTISEPTICIS?
S7	294242	WOUND? ? OR INJURY OR INJURIES OR TISSUE OR SKIN OR EPIDERM? OR DERMAL OR DERMIS
S8	1968	IC=A61B-018
S9	0	S1(S)S2(S)S3(S)S4
S10	557	S1(S)S2:S4
S11	943	S5:S6(5N)S7
S12	0	S10(S)S11
S13	**2**	**S10 AND S11**
S14	1	S8 AND S10
S15	**1**	**S14 NOT S13**
S16	1	S1(S)S2(S)S3
S17	**1**	**S16 NOT S13:S14**
S18	1	S1(S)S4(S)S2:S3
S19	**1**	**S18 NOT S13:S16**

13/3,AB,K/1 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

00924975

DECONTAMINATION APPARATUS
APPAREIL DE DECONTAMINATION

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Patent and Priority Information (Country, Number, Date):
Patent: WO 200258742 A1 20020801 (WO 0258742)
Application: WO 2001US48936 20011213 (PCT/WO US0148936)
Priority Application: US 2000255308 20001213
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 6720
English Abstract

An apparatus and method for **decontaminating surfaces on a living creature**. A beam of electrons is generated with an electron beam generator operating in the range of about 40 kv to 60 kv. The beam of electrons exit the electron beam generator through an exit window. The surfaces on the living creature are irradiated with the beam of electrons. The beam of electrons are of an energy sufficient to **decontaminate** the surfaces without damaging living **tissue** .

Fulltext Availability:
Detailed Description
Claims

Detailed Description

... invention is directed to a decontamination apparatus and method of decontaminating which is suitable for **decontaminating** surfaces, including clothing or the **skin** on a person, or other living creatures. Decontaminating surfaces on a living creature includes generating...

...with the beam of electrons. The beam of electrons are of an energy sufficient to **decontaminate** the surfaces without damaging living **tissue** .

In preferred embodiments, **ozone** is reduced in front of the exit window with an **ozone**...

...with the beams of electrons. The beams of electrons are of an energy sufficient to **decontaminate** the surfaces without damaging living **tissue** .

The present invention is also directed to decontaminating surfaces including generating a beam of electrons...invention is selected to be relatively low, the beam of electrons has sufficient energy to **decontaminate** the outer layers of dead **skin** of a person but not enough energy to penetrate deep enough to reach or damage...

...the principles of the invention.

FIG. 1 is a schematic drawing of the present invention **decontamination** apparatus irradiating a section of **skin** , with the nozzle assembly shown in section.

FIG. 2 is a schematic drawing of an...

...apparatus IO is employed for decontaminating surfaces having hazardous agents thereon and is suitable for **decontaminating** the clothes and **skin** of humans, as well as other living creatures. Decontamination apparatus includes an electron beam generator...

...that ordinarily would be too far away.

Often, the surface 22a is a person's **skin** requiring **decontamination** from hazardous agents such as chemicals or biological agents (bacteria, viruses, etc.). The beam 16...low power bewn,16 of electrons e-, such difficult areas can be irradiated sufficiently for **decontamination** with little or no **tissue** damage. In other typical applications, **decontamination** apparatus 1 0 can be used to decontaminate the clothing of a person or the...for removing gases 72 undesirable for inhalation, such as the supplied inert gases and/or **ozone** . A **blower** system can also be employed as the gas removal system. The air/oxygen supply system...

Claim

... with the beam of electrons, the beam of electrons being of an energy sufficient to **decontaminate** the surfaces without damaging living **tissue** .

I 0 2. The method of Claim 2 further comprising reducing ozone in front of...

...with the beams of electrons, the beams of electrons being of an energy sufficient to **decontaminate** the surfaces without damaging living **tissue** .

15 A method of **decontaminating** surfaces comprising: generating a beam of electrons with an electron beam generator, the beam of...

13/3,AB,K/2 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00410926
OZONE APPLICATIONS FOR DISINFECTION, PURIFICATION AND DEODORIZATION
APPLICATIONS DE L'OZONE AUX FINS DE DESINFECTION, PURIFICATION ET DESODORISATION
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Patent and Priority Information (Country, Number, Date):
Patent: WO 9801386 A2 19980115
Application: WO 97IL214 19970626 (PCT/WO IL9700214)
Priority Application: IL 118741 19960626
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 13388
English Abstract
A frame-type **ozone** generator (242) has a plurality of elongated electrodes (201, 202) deployed in substantially parallel, spaced relation to each other so as to form a substantially flat electrode array, and a flow generator (241) for generating a flow of oxygen containing gas through the electrode array in a direction substantially perpendicular to the electrode array. Each of the electrodes is formed from an electrically conductive core (211) covered with polyvinyl-difluoride (212). Preferably, each electrode array is arranged within a frame (206) of a given area. Also disclosed are an apparatus for treating a product with ozone-containing gas in which pressure-waves are used to enhance effectiveness of the ozone treatment, and a two-chamber batch method for implementing treatment of a product with possibly harmful gases such as ozone.
Fulltext Availability: Detailed Description
Detailed Description
... a film wrapped around an object to be treated.
Figure 18 illustrates a system for **disinfecting** of open **wounds** and burns before or/and after any medical treatment.
Figure 19 is a schematic plan...a treatment process of an object with a system for achieving a homogeneous mixture of **ozone** and a carrier gas in the treatment space. This system is intended to operate a device for producing a homogeneous **ozone** -containing gas mixture, based on a Erarne-type **ozone** generator, described below. This **ozone** generator produces **ozone** in a homogeneous mixture with a carrier gas, which does not necessitate a dedicated **blower** (**fan**).
I 0 The details of the system are as follows.
a frame-type ozone generator...single objects such as medical appliances, laboratory equipment, etc.

Figure 18, illustrates a system for **disinfecting** of open **wounds** and burns 1 5 before or/and after any medical treatment.
The details of the...the present invention and a blower. The system comprises.
* a cabinet (240);
* an integrated **blower** (24 1
* an ozonator according to the present invention (242),
* a catalytic filter (243);
* an external space on front of the **ozone** treatment area (244);
* a space where the **ozone** treatment is applied (245);
a an internal space after the catalytic filter (246);
* a filter for the removal of dust particles (247), placed before the **blower** ; * a second catalytic filter (248), to prevent the release of **ozone** caused by a reverse flow of gas (optional).
Figure 29 illustrates a typical use of...512. Near inlet 510, a power supply 514 supplies a motor 516 which drives a **fan** 518 via a drive shaft 520. A partition 522 defines a small aperture 524 around...
...the inlet region containing power supply 514 and motor 516 from the operating volume of **ozone** generator 500.
In operation, **fan** 518 generates a dual flow pattern: Firstly, it drives gas within the operating volume in...
...that the gas recirculates through frames 502. Additionally, the suction effect at the rear of **fan** 518 draws in gas from inlet 510 via aperture 524, producing a corresponding through-flow of gas out through outlet 512. By correctly configuring **ozone** generator 500, and more specifically, by aqjusting the size of aperture 524, the volurnetric flow by cooling pipes 526.
The positioning of **fan** 5 1 8 relative to aperture 524 helps to ensure that no possibly damaging **ozone** flows back into the region containing the power supply and motor.
Preferably, inlet 510 is...

15/3,AB,K/1 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

01018002
PHOTOTHERAPY FOR PSORIASIS AND OTHER SKIN DISORDERS
PHOTOTHERAPIE POUR TRAITER LE PSORIASIS ET AUTRES TROUBLES DERMATOLOGIQUES
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Patent and Priority Information (Country, Number, Date):
Patent: WO 200347682 A2-A3 20030612 (WO 0347682)
Application: WO 2002IL980 20021205 (PCT/WO IL0200980)
Priority Application: IL 146964 20011206; IL 148257 20020219
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English
Filing Language: English
Fulltext Word Count: 17192

English Abstract
Apparatus (330) for treatment of skin disorders includes a radiation source (362), which is adapted to generate radiation in multiple spectral bands. A radiation guide (315) is optically coupled to receive the radiation in all of the multiple spectral bands, and to convey the received radiation to an area of skin affected by one of the disorders, so as to treat the affected area. A band selector (352) is adapted to select one or more of the multiple spectral bands to be conveyed by the radiation guide, in response to a therapeutic indication.

Main International Patent Class: **A61B-018/18**
Fulltext Availability: Detailed Description
Detailed Description
... cooled by a coolant flowing through a heat-exchanger coil 36, along with optional exhaust **fans** 38 (which also remove **ozone** that may accumulate in the enclosure). Light baffles 40 prevent the escape of stray UV light through **fans** 38.
Reflector 34 focuses radiation emitted by lamp 32 into light guide 22. An optional...

17/3,AB,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00634368
Environment decontaminating system having air cleaning and deodorizing function
Einrichtung zur Dekontamination der Umgebung durch die Reinigung und Desodorierung von Luft
Systeme de decontamination de l'environnement par la purification et la desodorisation de l'air
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KABUSHIKI KAISHA MARUZEN CREATE, (1765210), 2-10-11, Nihonbashi, Kakigara-cho, Chuo-ku, Tokyo-to, (JP), (applicant designated states: DE;FR;GB;IT)
INVENTOR:
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LEGAL REPRESENTATIVE:
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PATENT (CC, No, Kind, Date): EP 616175 A2 940921 (Basic)
EP 616175 A3 941123
EP 616175 B1 970827
APPLICATION (CC, No, Date): EP 94103995 940315;
PRIORITY (CC, No, Date): JP 9378543 930315

DESIGNATED STATES: DE; FR; GB; IT
INTERNATIONAL PATENT CLASS: F24F-003/16;
ABSTRACT EP 616175 A2

The invention refers to an environment decontaminating system having air cleaning and deodorizing functions. It is object of the invention to provide such a system to reproduce cleaned air which should be provided by the nature covered with rich green by artificially utilizing dust collection, air sterilization, forest bathing effect, deodorizing and acid gas adsorption with safety as well as stability and thereby to maintain a desired indoor air quality. This object is achieved by a system having a DC high voltage dust collector, a dust catching filter, an ozone generator, an odor/ozone turbulent mixing plate, a deodorizing catalyst, an acid gas absorbent, a suction scavenging fan and an ozone concentration sensor arranged in this order, wherein said ozone concentration sensor is placed at an outlet of cleaned air. (see image in original document)

ABSTRACT WORD COUNT: 136
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9708W4	388
CLAIMS B	(German)	9708W4	324
CLAIMS B	(French)	9708W4	472
SPEC B	(English)	9708W4	3176
Total word count - document A			0
Total word count - document B			4360
Total word count - documents A + B			4360

...SPECIFICATION Coulomb effect provided by DC boosting, on one hand, and a very small amount of **ozone** is generated in order to decompose the offensive odor under masking effect of **ozone** , on the other hand; and the technique (3) in which dust collector utilizing DC boosting, easily cleanable filter, **ozone** concentration sensor, **ozone** generator, **ozone** deodorizing catalyst, acid gas absorbent and a scavenging **fan** are serially combined in this order within one and the same **wind tunnel** to achieve a desired air cleaning. (Japanese Patent Application No. 1991-289318 and Japanese Utility...
...technique is well known which is based on the chemical deodorization utilizing a combination of **ozone** generator, deodorizing catalyst and acid gas absorbent (Japanese patent application Disclosure No. 1991-143524), but the technique based on the chemical deodorization utilizing **ozone** often endangers a safety because this technique fails to consider a problem of secular change...

19/6/1 (Item 1 from file: 349)
00944971 **Image available**
AIR PURIFIER